

wherein W_1 , W_2 and W_3 are carbon or oxygen atoms;

L , M and N are hydrogen, hydroxy, halogen, lower alkyl, lower alkoxy, hydroxy(lower)alkyl or oxo, wherein at least one of L and M is a group other than hydrogen, and the five-membered ring may have one or more double bond(s);

A is $-\text{CH}_2\text{OH}$, $-\text{COCH}_2\text{OH}$, $-\text{COOH}$ or its functional derivative;

B is $-\text{CH}_2-\text{CH}_2-$, $-\text{CH}=\text{CH}-$ or $-\text{C}\equiv\text{C}-$;

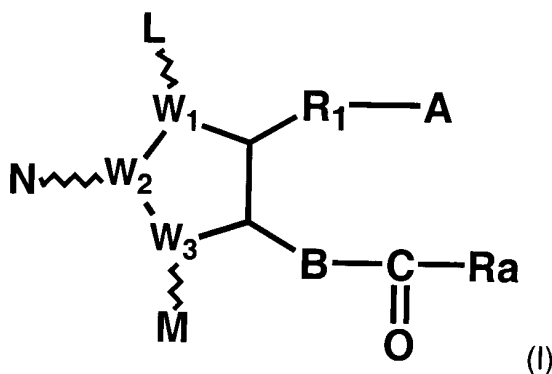
R_1 is a divalent saturated or unsaturated lower-medium aliphatic hydrocarbon residue, which is unsubstituted or substituted by halogen, alkyl, hydroxy, oxo, aryl or heterocyclic group; and

R_a is a saturated or unsaturated lower-medium aliphatic hydrocarbon residue, which is unsubstituted or substituted by halogen, oxo, hydroxy, lower alkyl, lower alkoxy, lower alkanoyloxy, cyclo(lower)alkyl, cyclo(lower)alkyloxy, aryl, aryloxy, heterocyclic group or heterocyclic-oxy group; cyclo(lower)alkyl; cyclo(lower)alkyloxy; aryl; aryloxy; heterocyclic group; or heterocyclic-oxy group to the subject.

16. The method of claim 1, wherein the eye disorder associated with apoptosis is an eye disorder caused by light.

Please add the following new claims:

19. (New) The method of claim 16, wherein the eye disorder caused by light is photoreinitis.
20. (New) A method for inhibiting apoptosis in a subject having a disease or condition associated with apoptosis, which comprises administering an effective amount of a 15-keto -prostaglandin compound represented by the following formula (I):



wherein W_1 , W_2 and W_3 are carbon or oxygen atoms;

L, M and N are hydrogen, hydroxy, halogen, lower alkyl, lower alkoxy, hydroxy(lower)alkyl or oxo, wherein at least one of L and M is a group other than hydrogen, and the five-membered ring may have one or more double bond(s);

A is $-\text{CH}_2\text{OH}$, $-\text{COCH}_2\text{OH}$, $-\text{COOH}$ or its functional derivative;¹

B is $-\text{CH}_2-\text{CH}_2-$, $-\text{CH}=\text{CH}-$ or $-\text{C}\equiv\text{C}-$;

R_1 is a divalent saturated or unsaturated lower-medium aliphatic hydrocarbon residue, which is unsubstituted or substituted by halogen, alkyl, hydroxy, oxo, aryl or heterocyclic group; and

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. APPLN. NO. 09/816,655

Ra is a saturated or unsaturated lower-medium aliphatic hydrocarbon residue, which is unsubstituted or substituted by halogen, oxo, hydroxy, lower alkyl, lower alkoxy, lower alkanoyloxy, cyclo(lower)alkyl, cyclo(lower)alkyloxy, aryl, aryloxy, heterocyclic group or heterocyclic-oxy group; cyclo(lower)alkyl; cyclo(lower)alkyloxy; aryl; aryloxy; heterocyclic group; or heterocyclic-oxy group to the subject.

21. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 13,14-dihydro-15-keto-prostaglandin compound.

22. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 15-keto-16-mono or dihalogen-prostaglandin compound.

23. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 13,14-dihydro-15-keto-16-mono or di-halogen-prostaglandin compound.

24. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 15-keto-16-mono or di-fluoro-prostaglandin compound.

25. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 13,14-dihydro-15-keto--16-mono or di-fluoro-prostaglandin compound.

26. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 15-keto-20-lower alkyl-prostaglandin compound.

27. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 15-keto-20-ethyl-prostaglandin compound

28. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 2-decarboxy-2-(2-carboxy lower alkyl)-15-keto-prostaglandin compound.

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. APPLN. NO. 09/816,655

29. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 2-decarboxy-2-(2-carboxyethyl)-15-keto-prostaglandin compound.

30. (New) The method of claim 20, wherein the 15-keto-prostaglandin compound is a 2-decarboxy-2-(2-carboxyethyl)-13,14-dihydro-15-keto-16-mono or di-fluoro prostaglandin compound.

31. (New) The method of claim 20, wherein the 15-keto prostaglandin compound is a 2-decarboxy-2-(2-carboxyethyl)-13,14-dihydro-15-keto-16-mono or di-fluoro prostaglandin compound.

B³ cont.
32. (New) The method of claim 20, wherein the 15-keto prostaglandin compound is a 2-decarboxy-2-(2-carboxyethyl)-13,14-dihydro-15-keto-16,16-di-fluoro-20-ethyl-prostaglandin compound.

33. (New) The method of claim 20, wherein the 15-keto prostaglandin compound is a 15-keto-prostaglandin E compound.

34. (New) The method of claim 20, wherein the 15-keto prostaglandin compound is a 2-decarboxy-2-(2-carboxyethyl)-13,14-dihydro-15-keto-16,16-di-fluoro-20-ethyl-prostaglandin E₁ isopropyl ester.

35. (New) The method of claim 20, wherein the disease or condition associated with apoptosis is an eye disorder associated with apoptosis.

36. (New) The method of claim 35, wherein the eye disorder associated with apoptosis is an eye disorder caused by light.

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. APPLN. NO. 09/816,655

37. (New) The method of claim 36, wherein the eye disorder caused by light is photoretininitis.

B³ cont
38. (New) The method of claim 20, which comprises administering ophthalmically a composition comprising a 15-keto-prostaglandin compound formulated in a dosage form suitable for ophthalmic administration.

39. The method of claim 38, wherein said composition is formulated as eye drops.
